

AMENDMENTS TO THE CLAIMS

Please cancel Claims 3, 8 and 9; amend Claims 1 and 4; and add new Claims 10 and 11 as follows.

LISTING OF CLAIMS

1. (currently amended) A controlled atmosphere furnace comprising
a conveyor device for continuously transporting articles to be brazed, each of the articles being coated with a flux;
a preheating chamber for preheating the article and a brazing chamber for brazing the article, and
an atmosphere shutter chamber disposed forward and rearward of the brazing chamber for preventing atmospheric gas in the brazing chamber from flowing out, one of the atmosphere shutter chambers being disposed between the preheating chamber and the brazing chamber, wherein
the article conveyed through the preheating chamber is quickly preheated by a combustion gas, circulating in the preheating chamber in a closed-loop flow path, close to a predetermined temperature and within a predetermined time;
a gas burner which creates the combustion gas and a circulation fan are provided in the closed-loop flow path for the combustion gas;
the predetermined time is approximately five minutes in view of the deterioration degree of flux in the combustor gas and the growth of oxide layer on the article, and the predetermined temperature is approximately 450°C; [[and]]
~~the brazing chamber is filled with a non-oxygen atmosphere.~~

a temperature sensor is disposed within the preheating chamber to monitor a temperature of the preheating chamber; and

a temperature controller is in communication with the temperature sensor, the gas burner and the circulation fan, the controller controlling the gas burner and the circulation fan based upon the temperature of the preheating chamber sensed by the temperature sensor to maintain a specified temperature within the preheating chamber.

2.-3. (cancelled)

4. (currently amended) A controlled atmosphere furnace as defined by claim 1, ~~wherein~~ further comprising a conveyor controller for controlling a speed of the conveyor device ~~is controlled~~ so that the article passes through the preheating chamber within a predetermined time.

5. (original) A controlled atmosphere furnace as defined by claim 1, wherein the atmosphere shutter chamber has a plurality of metallic curtains.

6. (cancelled)

7. (original) A controlled atmosphere furnace as defined by claim 1, wherein a tip nozzle of a circulation duct defining the closed-loop flow path for circulating the combustion gas opens to a portion of the article required to be heated.

8.-9. (cancelled)

10. (new) A method for manufacturing brazed articles, the method comprising
- measuring a temperature of a preheating chamber;
 - transporting articles to be brazed through the preheating chamber;
 - preheating the articles during the transporting of the articles through the preheating chamber;
 - transporting the preheated articles through a brazing chamber;
 - brazing the preheated articles during the transporting of the preheated articles through the brazing chamber to produce the brazed articles;
 - controlling a gas burner and a circulation fan in communication with the preheating chamber based on the temperature of the preheating chamber so as to preheat the articles within five minutes and to 450° C during the preheating step.
11. (new) The method for manufacturing brazed articles according to Claim 10, further comprising controlling a speed of a conveyor transporting the articles through the penetrating chamber.